

## EXAMINER'S NOTES

Matches 183; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MKRIIVAAIAVSLTTTSTITASADPSKSKAQAQVSAAEAGITGTWNOIGSTFIYTAGD 60  
 DB 1 MKRIIVAAIAVSLTTTSTITASADPSKSKAQAQVSAAEAGITGTWNOIGSTFIYTAGD 60  
 QY 61 GALTGTYESAVGNAESRYVLTGRYDSAPATDGSGLGWTVMKNNYRNAHSAATTWSGOY 120  
 DB 61 GALTGTYESAVGNAESRYVLTGRYDSAPATDGSGLGWTVMKNNYRNAHSAATTWSGOY 120  
 QY 121 VGGAERINTOMLITSGTTEANAMKSTLVGHDTFTKVPASASIDAKKAGVNNGNPLDA 180  
 DB 121 VGGAERINTOMLITSGTTEANAMKSTLVGHDTFTKVPASASIDAKKAGVNNGNPLDA 180  
 QY 181 VQQ 183  
 DB 181 VQQ 183

RESULT 2  
 AAP93530  
 ID AAP93530 standard; protein; 183 AA.  
 AC AAP93530;  
 DT 04-JUN-1990 (first entry)  
 DE Streptavidin protein.  
 KM Streptavidin; Streptomyces avidinii; biotin.  
 OS Streptomyces avidinii.  
 FH Key Location/Qualifiers  
 FT Peptide 1..24 /note="leader sequence"  
 FT Protein 25..159 /note="this sequence was as the basis for the design for the synthetic gene of the present invention."  
 PN W08903422-A.  
 PD 20-APR-1989.  
 PF 07-OCT-1988; 88WO-GB000831.  
 PR 08-OCT-1987; 87GB-00023661.  
 PA (BRRI-) BRIT BIO-TECHN LTD.  
 DR WPI; 1989-130040/17.  
 PT DNA sequence encoding streptavidin and vector - comprising hybrid gene encoding fusion protein with biotin-binding activity.  
 PS Fig 1; page 1/5; 22pp; English.  
 CC Streptavidin is a 60KD protein isolated from Streptomyces avidinii that binds extremely tightly to the vitamin biotin. It is composed of four identical subunits of 15KD and binds 4 mole of biotin per mole of four protein. It is structurally related to the protein avidin. It can be readily conjugated to a range of other proteins. In order to facilitate the incorporation of streptavidin into expression vectors and the production of novel chimeric proteins containing streptavidin functionality, an improved novel synthetic gene for streptavidin has been constructed (AAN90755) based on the amino acid sequence of mature streptavidin  
 SQ Sequence 183 AA;

Query Match 100.0%; Score 936; DB 1; Length 183;  
 Best Local Similarity 100.0%; Pred. No. 1.3e-75;  
 Matches 183; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MKRIIVAAIAVSLTTTSTITASADPSKSKAQAQVSAAEAGITGTWNOIGSTFIYTAGD 60  
 DB 1 MKRIIVAAIAVSLTTTSTITASADPSKSKAQAQVSAAEAGITGTWNOIGSTFIYTAGD 60  
 QY 61 GALTGTYESAVGNAESRYVLTGRYDSAPATDGSGLGWTVMKNNYRNAHSAATTWSGOY 120  
 DB 61 GALTGTYESAVGNAESRYVLTGRYDSAPATDGSGLGWTVMKNNYRNAHSAATTWSGOY 120  
 QY 121 VGGAERINTOMLITSGTTEANAMKSTLVGHDTFTKVPASASIDAKKAGVNNGNPLDA 180  
 DB 121 VGGAERINTOMLITSGTTEANAMKSTLVGHDTFTKVPASASIDAKKAGVNNGNPLDA 180  
 QY 181 VQQ 183  
 DB 181 VQQ 183

RESULT 3  
 AAR44491  
 ID AAR44491 standard; protein; 183 AA.  
 AC AAR44491;  
 DT 25-MAR-2003 (revised)  
 DT 27-JUN-1994 (first entry)  
 DE Streptavidin gene.  
 KM Streptavidin; protein secretion; Bacillus subtilis.  
 OS Streptomyces avidinii.  
 FH Key Location/Qualifiers  
 FT Misc-difference 1..24 /label=signal\_peptide  
 FT Protein 25..183 /label=streptavidin  
 FT Peptide 37..183 /note="expressed by transformed B. subtilis"  
 PN W09324631-A1.  
 PD 09-DEC-1993.  
 PF 27-MAY-1993; 93WO-US005240.  
 PR 29-MAY-1992; 92US-00891524.  
 PA (DUPO) DU PONT DE NEMOURS & CO E I.  
 DR WPI; 1993-405822/50.  
 DR P-PSDB; AAC53412.  
 PT Streptavidin prodn. from Bacillus subtilis - using signal protein from bacterial exo-protein and expression element from Gram positive bacterial protein.  
 PS Disclosure; Fig 1b; 54pp; English.  
 CC Tetrameric biologically active streptavidin is produced by secretion from Bacillus subtilis transformed with a plasmid encoding the sequence.  
 CC (Updated on 25-MAR-2003 to correct PN field.)  
 SQ Sequence 183 AA;

Query Match 100.0%; Score 936; DB 2; Length 183;  
 Best Local Similarity 100.0%; Pred. No. 1.3e-75;  
 Matches 183; Conservative 0; Mismatches 0; Indels 0; Gaps 0;